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MODERN
SINGING METHODS

THEIR USE AND ABUSE

By J. FRANK BOTUME

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MODERN SINGING METHODS,

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USE AND ABUSE.

BY
J. FRANK BOTUME.

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FRANKLIN
H. SARGENT
1865-1870

Inscribed to my friend,

Franklin H. Sargent,

DIRECTOR OF THE LYCEUM THEATRE-SCHOOL,

as a slight token of my appreciation

of his service for

true art.

CONTENTS.

1. INTRODUCTORY,	5
2. MEANING OF THE WORD "METHOD,"	7
3. THE OLD ITALIAN SCHOOL,	8
4. SOME MODERN METHODS,	11
(a.) RESPIRATION,	12
(b.) USE OF THE VOCAL CHORDS,	15
(c.) POWER AND RESONANCE,	24
(d.) TIMBRE,	26
(e.) ARTICULATION,	27
5. CONCLUSION,	30

APPENDIX TO SECOND EDITION.

THE OLD ITALIAN SCHOOL,	33
RESPIRATION,	34
USE OF THE VOCAL CHORDS,	36
POWER AND RESONANCE,	37
TIMBRE,	40
STYLE,	42

APPENDIX TO FOURTH EDITION.

THE OLD ITALIAN SCHOOL,	45
SOME MODERN TEACHERS AND INVESTIGATORS,	46

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I. INTRODUCTORY.

THE most important word in the vocabulary of Modern singing teachers is the word "Method." Every teacher now-a-days has his own peculiar method. Any pupil who has enjoyed six months, or even six hours, of instruction, can talk about his "Method" with as much mysterious self-satisfaction as if he had discovered the Key which was bound to unlock every enigma of vocal training. It is an interesting and, perhaps, amusing fact, that these methods are innumerable. It is also to be noticed that each one is different from every other. True: — All teachers agree, that, out of this crowd of ways for reaching vocal salvation, only one is the true and Catholic path, and all the rest are heresies. When, however, they come to the question of which path is the true one, they differ most emphatically, each teacher going his own way and regarding all others with righteous scorn.

The beginner in the art of singing finds a difficulty in picking out the true faith when all the prophets are equally noisy and equally vituperative; so he often spends years seeking for the right teacher, staying with each master only long enough to upset what the previous one had taught him, and, too often, coming at last to the conclusion that his own unaided good sense is the best teacher, and all singing masters are either theorists or humbugs. This conclusion is a lame and impotent one. The singing teach-

er's profession, like all others, contains a few charlatans, and also is responsible for many whose instruction, though honest and well meant, is more or less injurious to voice and pupil; but the majority of teachers (in this city, at any rate,) is made up of good and conscientious instructors of both sexes.

The tendency of teachers to decry one another is, however, a fruitful cause of confusion in the minds of young students. It is the object of the following pages to give a few guiding principles, that will assist the beginner in his effort to distinguish a good method or teacher from a bad one.

It may be said, to begin with, that no great and startling discovery is contained herein. No method or system has yet been found that will make all persons sing well and cure all vocal faults. The theory is sometimes advanced at the present time that all persons can sing well, if they receive proper instruction. Every one is familiar with the prevalent advertisements of patent medicines, which are therein held out to a despairing world as a sure cure for all the ills that flesh is heir to. It is difficult to see much difference between such advertisements and the claim that "Correct Method" is an unfailing specific for all vocal disorders. Such a method is, alas, a figment of the imagination.

The young student should disabuse himself, at the outset, of the idea that the best master in the world can make great artists out of all his pupils. It has been truly said (speaking of a kindred profession to that of the vocalist) "Only a few can hope to secure the great prizes of success;

many must be satisfied with second or even third rank but work well done is interesting and important in any part, and steady perserverance with fair abilities must in the end lead to success and competency if not to fame." [*Circular of the Administration of the N. Y. Lyceum Theatre School. July 15, 1884*].

No teacher can do wonders with all his pupils, nor can any amount of "Method" enable one to do in two years that which has taken the greatest teachers of the world from four to seven. No method can make good the absence of natural aptitude or of persistent practice.

The use of common sense seems to forsake even the brightest of young men or women when they approach a teacher. They apparently expect that the master is a wizard who will give them some occult and mysterious charm that will work a magic transformation in their voices at once. It cannot be too strongly insisted that the art of singing is not an occult thing. It is very much like the carpenter's trade: one must have some aptitude for it to begin with; next he must learn how to use the tools of his craft; finally, he must acquire mechanical dexterity by practice. Intelligent and persistent practice is the key to the problem.

II. MEANING OF THE WORD "METHOD."

The question then arises: "What practice is intelligent and what is not intelligent"? "How shall we use our intelligence in developing the voice"? Here we come to the question of Method. There is no word more frequently used and less understood. "Method" means the way in which a thing is done. It is the means to an end;

it is not the end itself. A singer's method is not the tone he produces: it is the way in which he uses his vocal apparatus to produce that tone. If a teacher says "That tone is harsh, sing more sweetly," he has given no method to his pupil. He has asked the scholar to change his tone but has not shown him how to do it. If, on the other hand, he directs the pupil to keep back the pressure of the breath, or to change the location of the tone; if he instructs him in regard to the correct use of his vocal chords, or speaks of the position of his tongue, of his diaphragm, of his mouth etc., he gives him method; for these things are not an end in themselves, but are employed as means. They are the ways in which the teacher desires the pupil to use his or her vocal apparatus, in order that the end, artistic singing, may be reached.

People often say they like a singer's method, when they mean that they like his voice. They admire the result, while perfectly ignorant of the way in which it is produced.

We mean, then, by method, the way in which the voice is produced and controlled, as distinguished from the voice itself. The next step is to find out what is the true method among all these conflicting views regarding the voice. When doctors disagree, who shall decide?

III. THE OLD ITALIAN SCHOOL.

To the wise seeker after truth the teachings of experience are always valuable. We shall be materially aided in our search for the true method by turning for a moment to the past history of the art of singing.

The Italian teachers of the early period of this art had so little method that it can hardly be said to have existed with them. In fact, the word method, as now used, is of comparatively modern origin. The founders of the art of singing aimed at results directly; the manner of using the vocal apparatus for the purpose of reaching those results troubled them comparatively little. The pupil was told to sustain each note of his voice, beginning *pianissimo*, and giving the *crescendo*, and *diminuendo*. He was also given certain vocal exercises to develop his voice and render it flexible, and at the proper time his training was completed by the singing of elaborate vocalizations and songs. As far as the range of the voice was concerned, he sang at first only those notes which were natural to his voice, and trusted to time and practice to increase its extent.

The old Italian teacher took the voice as he found it. He began with the simplest and easiest work, and trusted to patient and long continued exercise to develop the vocal apparatus.

In all this there is no method, as we understand the term. The result is aimed at directly. The manner of getting it is not shown. There is no conscious control of the vocal apparatus for the purpose of effecting a certain result. These old teachers taught no elaborate system of respiration. They had not dissected the "spinal accessory system." "Sympathetic vibrations," and "over-tones," were as Greek unto them.

Nevertheless, the question of how to use the vocal

apparatus must have arisen. A simple method must have formed a part of the training process of the old masters.

It is somewhat difficult to find out what this method was; as the Italian school has always rested almost entirely on traditions passed down orally from teacher to pupil, and rarely written out for publication. Some of the greatest teachers of the old school left not enough in print to cover a good sized page. They left pupils, however, who made them famous. Some modern teachers seem to have succeeded better in making books, than pupils.

This much we know: The method of the old school was simple. Some of its guiding principles have come down to us. A more extended account of this school, as exemplified by Crescentini, Lablache, Farinelli, Porpora, and other great artists and teachers, is contained in a pamphlet entitled "The Neapolitan School," by Vincenzo Cirillo, published by Geo. H. Ellis, Boston. Signor Cirillo is one of the few Italian teachers who have visited this country who are entitled to speak with authority on this subject. This pamphlet is now out of print, but Sig. Cirillo has been written to, at Rome, and an endeavor will be made to supply his pamphlet to those desiring it. Application may be made to J. Frank Botume, Boston.

The rule as to breathing was, in substance: "Breathe naturally, quietly, and without effort; husband and economize the breath during the emission of the tone." The shoulders were not to be raised, except for an extraordinary effort. It is said of Rubini, that it was impossible to tell when he took a breath.

The upper tones of the female voice were to be felt in

the head, and the lower tones of all voices in the chest. The upper tones of the male voice were of a mixed or medium character, between chest and head. The old school had no such elaborate system of registers as are often used at present.

These simple rules, and others similar to them, embraced the method of the old "Maestro," but his method was not his main reliance. He trusted, above all things, to the power of exercise to develop the voice, just as the gymnast trains himself for feats of strength by attempting first gentle ones and finally those that are more arduous. This exercise was continued for five, six, or seven years, and, at the end of the period of instruction, the pupil was able to execute music, the technical difficulty of which would appal almost all modern singers.

IV. SOME MODERN METHODS.

Gradually this system was changed by the introduction of more brain work. Modern times have been famous for the invention of labor saving appliances. A demand arose for something different from the slow and unintellectual process of the old Italian School. Pupils wanted their course shortened (for the moderns are an impatient race). They were not satisfied with a teacher who iterated and reiterated, month after month, the common sense which they already knew by heart. They cried for some new idea at every lesson.

On the other hand, the more intelligent teachers and many scientists felt that there must be in modern processes of scientific investigation a means of acquiring new and

valuable ideas regarding the production and control of the voice.

Thus began the holiday of methods. It too often happened that the more mysterious and unintelligible a teacher's method was, the better the pupil was pleased. Whatever nobody would naturally think of, that must be the great secret. Pupils were taught that the vocal chords had nothing to do with the production of the voice, that the ribs should not be used in breathing, and other equally wonderful things. Such abnormal methods were more in vogue a few years ago than at present.

The results of scientific investigation have been, on the whole, of great benefit to vocal art. While many vocal problems remain unsolved, the student who should study, or the teacher who should teach, today, without careful consideration of these results, would do so at the peril of finding himself behind the times. These results are mainly concerned with the following subjects, viz:—(a) Respiration; (b) Use of the vocal chords; (c) Power and Resonance; (d) Timbre; (e) Articulation.

It would be beyond our scope, to take a complete view of the investigations into these subjects. A summary of some of the principal results is all that is necessary to our purpose. This will now be given :

a. RESPIRATION.

The first thing that a singer does, in preparing to make a tone, is to take a breath. The manner of doing this has always been considered of great importance. Two methods of respiration have been principally taught.

These are generally distinguished from each other by the terms "Clavicular" on the one hand, and "Abdominal" (or "Diaphragmatic") on the other.

The clavicular mode of taking breath consists in throwing out the chest, and at the same time drawing in the abdomen. It is said to be taught at the Conservatory at Paris. The abdominal mode consists in an external expansion of the abdomen, immediately followed by the expansion of the lower ribs, with but little motion in the upper chest, and none at the collar bone.

But slight knowledge of physiological laws is necessary to show that the clavicular mode is unnatural, and therefore wrong. In taking a breath, naturally and properly, the diaphragm descends, pressing out the lower ribs, and pushing before itself the contents of the abdomen. A drawing in of the abdomen must interfere with this downward motion of the diaphragm, by exerting pressure upwards against it. The lungs are broader at their bases than at their tops, and the lower ribs are looser and more easily expanded than the upper ribs. Hence a normal inspiration will expand the chest more at the lower than at the upper part.

We have the testimony of physicians to the effect that many of the throat ailments of singers may be brought on or exaggerated by the strain on the inside of the throat that accompanies singing in the clavicular method.

It is asserted, with much plausibility, that the abdominal mode follows natural laws. The subject might be dismissed with an approval of that method, were it not for

the fact that singers employing it seem to be rather too subject to constipation, dyspepsia, liver troubles, and other disorders of the stomach and abdominal region. It is apparently well settled, that this system of breathing, (at least, as taught by most teachers) has a tendency to cause serious uterine troubles in female singers. This is a well known fact among physicians. For a convincing discussion of this topic, the reader is referred to a pamphlet by Dr. Clifton E. Wing, of Boston, entitled "The 'Abdominal Method' of Singing and Breathing as a cause of 'Female Weaknesses.'" [*A paper read before the Boston Society for Medical Improvement, Nov. 22, 1880, and communicated to the Boston Medical and Surgical Journal*].

The writer may be permitted to describe here the mode of breathing which his experience has led him to follow.

Let the pupil stand erect, neither throwing out the chest artificially, nor on the other hand, stooping forward. The breath should then be taken quietly and easily, without any very pronounced lifting of the shoulders and without drawing in the abdomen. The pupil should not endeavor to get a marked expansion of the abdominal region, unless the same comes naturally and without effort, and should allow the ribs to expand freely, laterally, with a moderate and easy expansion forward and upwards. The abdominal muscles should not be used at all in inspiration. They are properly used in expiration, but the pupil should not, habitually, give to the highest tones of the voice an increased support from the abdominal muscles, in order to raise the pitch of the voice by increased pressure of breath.

If the vocal chords are properly used, the upper tones require for ordinary work less support than the lower ones. This will be demonstrated further on.

Men generally have a more pronounced abdominal expansion than women. Persons of stout habit, or of compact make-up, often show the descent of the diaphragm by an abdominal expansion to a greater extent than those of thin or loose make-up.

This difference in external expansion seems to be at least partially owing to the fact that in stout persons, or those of compact tissue, the contents of the abdomen are usually so tightly packed that a very slight displacement of the region immediately beneath the diaphragm will cause a movement, *en masse*, of the entire contents of the abdomen, and, thus, an expansion of its outside wall. In thin or flabby persons, in whose cases the contents of the abdomen are apt to be loosely packed, a descent of the diaphragm may, at its beginning, merely cause these contents to pack more closely together, without pushing out the abdominal walls to any marked extent. In this latter case the lateral expansion of the ribs may be felt first, and the expansion of the abdomen follow as the result of deeper inspiration.

(b.) USE OF THE VOCAL CHORDS.

After inspiration, the next thing is to cause the air thus inhaled to set the vocal chords into vibration and thus begin a musical tone. Since the invention of the laryngoscope, the action of the vocal chords has been carefully and thoroughly investigated by means of this instrument.

The results thus gained have been of great benefit to the art of singing.

The celebrated Garcia was the first to make systematic observations of the vocal chords in action. The results gained by him were valuable but incomplete. It was reserved for Madame Emma Seiler, by patient and long-continued observations on herself and others, to discover the normal action of the vocal chords in singing, ("The Voice in Singing," by Emma Seiler. Philadelphia, J. B. Lippincott & Co, 1881). Her statements are substantiated by a recent English work ("Voice, Song and Speech," by Lennox Browne and Emil Behnke. New York, G. P. Putnam's Sons, 1884), and by others.

It is impossible to give more than a brief summary of the various movements of the vocal chords in singing. For a more extended discussion the reader is referred to the above mentioned works.

In taking breath the vocal chords are more or less separated. In producing tone, the lower or true vocal chords come together, like the blades of a pair of scissors. The upper or false vocal chords never meet in sounding a tone. The lower vocal chords are also called "Vocal ligaments," "Vocal bands," etc. We shall speak of them as "the vocal chords."

In singing scales, arpeggios, runs, etc., this scissors-like movement of the vocal chords is repeated for each note. It is evident that a strong pressure of breath against the vocal chords would interfere with this movement; hence, we can see the correctness of the rule, given by our best

teachers, that a correct and facile execution requires the breath to be kept poised.

The proper manner of starting a tone is to approximate the vocal chords and at the same instant to set them in vibration by a light touch of breath-pressure. This is called by Garcia, the stroke of the glottis. ("Garcia's Vocal Method," p. 11.—Boston, Ditson & Co.) This approximation of the vocal chords is not easily felt by the singer, though it can be observed when one is singing roulades. The easiest and most practical way of acquiring this stroke is to make one's self acquainted with the most common faults in starting the tone, and by striving to avoid them, to acquire the proper touch of the voice.

These faults are caused, firstly, by a shutting of the vocal chords before the beginning of the tone, thus damming up, as it were, the accumulated breath, which, when it finally bursts through the obstruction, causes an explosive tone, like the sound of a pop-gun; and, secondly, by a sluggish action of the vocal chords which allow the breath to escape before they meet in producing tones, causing thereby a sound resembling the letter "h."

The vocal chords are attached in front to the inside of the projection in the throat, called (in men) the Adam's apple. Each vocal chord at its back is attached to a little pyramid shaped piece of gristle. These pyramids are called the Arytenoid cartilages, and are fastened in their turn to the back of the larynx.

The vocal chords are elastic and susceptible of different degrees of tension. This tension has a noticeable effect on a little opening that may be felt in the front of the

neck, between the cartilages of the larynx. This opening may be found by pressing the point of the finger immediately under the Adam's apple in the male larynx, or under the corresponding slight bunch of gristle in the female larynx. There will be found a little space between the Adam's apple and a ring-shaped piece of gristle immediately beneath. This opening gradually closes as the vocal chords become stretched more and more tightly, and finally disappears when the vocal chords are stretched to their utmost extent.

The result of observations with the laryngoscope, by Madame Seiler, and others, is that we now know that the vocal chords act in five different ways in producing tone.

First way. The vocal chords vibrate through their entire length and breadth, and the arytenoid cartilages (or pyramids) act with them, closing together at each tone in the scissors-like manner previously described.

Second way. The arytenoid cartilages remain closed together and cease to act. The vocal chords vibrate as in the first way.

Third way. Only the inner edges of the vocal chords vibrate, but the action of the arytenoid cartilages, described in the first way, is resumed.

Fourth way. Same as the third way, with the omission of the action of the arytenoid cartilages, which remain closed, as in the second way.

Fifth way. Not only are the arytenoid cartilages closed together, but the vocal chords themselves are closed firmly together through half their length. This closure extends from the arytenoid cartilages as far as the middle of the

space between the vocal chords. The remaining space between the vocal chords, forms an oval orifice, and the fine edges of the vocal chords which form this orifice are alone vibrating. ("Voice in Singing," *passim*).

The changes in action of the vocal chords above described are not felt *directly* by the singer. We should waste our time if we attempted to find out, simply by observing the sensations in the larynx, whether, for instance, we were vibrating the entire vocal chords or only their edges. There is, however, an indirect manner of ascertaining which of the five ways above referred to is going on when we are producing a tone. Each of these ways is accompanied by a slightly different timbre in the voice (which should not be exaggerated), and also by a distinct and peculiar sensation in the body. It is these sensations that are our best guide, and, by following them, we may acquire the proper use of the vocal chords.

These sensations are as follows:—"Voice in Singing," p. 77. See also "Singing," by Alberto Randegger, p. 12. Boston, Oliver Ditson & Co.)

In the first way, "one has the sensation as if the whole body took part in this formation of tone, and as if the tones were drawn from the lowest part of the lungs." This way of using the vocal chords will be called in this work "Deep chest register."

In the second way, the sensation is as if the tones came from that part of the chest midway between the pit of the stomach and the larynx. This we will call "Mid-chest register,"

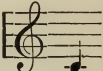
In the third way, the sensation is as if the tones had their origin in the throat. This we will call "Neck register."


In the fourth way, one feels as if the throat had nothing to do with the tones,—as if they were formed above in the mouth. This we will call "Mouth register."


In the fifth way, the tones seem to come from the forehead. This we will call "Head register."

The natural limits of these registers when the tone is produced lightly and without effort, are as follows:

In the female voice (whether Contralto or Soprano), the

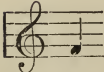
lowest tones of the voice as far up as the note 

belong to the deep chest register. From  to

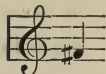
 inclusive, the tones belong to the mid-chest register.

The vocal chords for the lowest tones of the deep chest register are very loose, and we may notice that the little opening under the Adam's apple is well open. In the highest tone of the mid-chest register, the vocal chords are very tightly stretched, and the said opening entirely disappears.

Observations with the laryngoscope have shown that if we attempt to carry the mid-chest register beyond

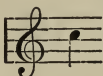
 when singing lightly, the vocal chords are injured, by the extraordinary tension to which they are

subjected, and the voice deteriorates in quality, and soon decays. If, on the contrary, we change at

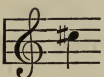
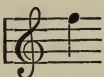


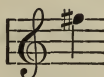
to the neck register, the vocal chords become fairly loose again, the aforesaid opening again appears, and the tone is produced without strain. This neck register continues

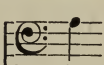
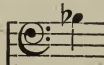
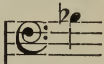
to

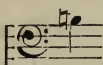
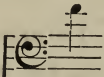


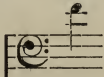
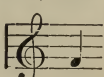
inclusive. The mouth register extends from

 to  inclusive. The head register be-

gins at  and continues to the end of the compass of the voice.

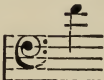
In the male voice (whether bass, baritone, or tenor), the lower tones up to  or  (written for tenors an octave higher) are properly sung in the deep chest register. The mid-chest register begins at 

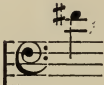
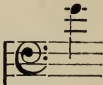
or  and extends to  inclusive. Here we

may notice that the mid-chest register in all voices, male and female, ends at the same note  or 


(It being always understood that music for the tenor voice is written an octave higher than it is sung. We shall give the limits of the tenor voice in the notation of the bass clef, as it is actually sung.)


In the male voice, as in the female, there is a perceptible strain in the effort to carry this register higher, when producing a light tone. The bass voice rarely goes higher

than  but baritone and tenor voices should sing

all their upper tones, beginning with  or 

in the neck-register, except when making an especial effort. This enables the vocal chords to assume again an easy and free position, as is shown by the re-appearance of the little opening under the Adam's apple. Some light tenors can

carry this register to its extreme limit  generally

written  at which point the mouth register be-

gins in male voices. The mouth register is of no value in the male voice. The most robust tenors can, with practice, attain, by using the neck voice, a clear and ringing high *b flat* and *c*.

The neck voice is not that effeminate, pulpy, and useless tone, commonly called "falsetto" in this country. The "falsetto" voice is shown by the laryngoscope to be the mouth register above referred to, brought down to the lowest tones of the neck voice. ("Voice, Song, and Speech," pp. 177, 178, 238.)

The natural result of carrying down the mechanism of the mouth-voice into the lowest tones of the neck-register is to cause such a relaxed condition of the vocal chords that only a feeble tone is possible.

The neck voice is the mixed voice of the old Italian School. It should be carefully distinguished from chest, falsetto, and head-tones. The premature decay of almost all modern operatic tenors, is due to their neglect of this beautiful register, in the use of which Rubini, and other famous artists of the past, excelled.

One more fact remains to be noticed concerning the action of the vocal chords. This is, that the vibrating medium is largest in the deep-chest register, and is smaller and smaller for each succeeding register. For example, in the deep-chest register the vocal chords and arytenoid cartilages are vibrating through their entire length and breadth, while, in the head-register, only the edges of about half the length of the vocal chords are vibrating. It may easily be seen, from this, that each register requires, for the production of tone, less breath-pressure than the preceding one.

This is particularly noticeable in the transition from mid-chest to neck in all voices, and from mouth to head in female voices. The pernicious habit of habitually giving the upper tones (particularly in tenor and soprano voices) an additional support from the muscles governing respiration, interferes with the proper use of the vocal chords, causes the voice to be shrill and to decay prematurely, creates a tremolo, and is apt to injure the health of even the toughest pupil.

(c.) POWER AND RESONANCE.

The strength of a vocal tone depends partially on the amplitude of the vibrations of the vocal chords. A light pressure of breath will cause the vibrations of the vocal chords to extend through only a small space. A strong pressure will cause these vibrations to be more extensive, with a stronger tone as the result. This is an example of a general law of physics, which need not be explained here.

It is sufficient for our purpose to know that increased breath-pressure by causing each vibration of the vocal chords to traverse a larger amount of space, increases the strength of the tone. If this increase in strength were the only effect of breath-pressure, our task would be easier than it is. In that case, we should simply have to follow the example of the pianist who gets his full tone by a strong stroke upon the key.

Our process is complicated by the following fact: Experiments upon larynxes which have been cut out of the human body, and whose vocal chords have been subjected to the pressure of a column of air, show that increased pressure of breath has a tendency to raise the pitch of the tone, without any increase in the tension of the vocal chords.

From this it follows that under increased breath-pressure, the limits of the registers previously given (pp. 20-22) may be extended upwards without increasing the tension of the vocal chords. How far this can be done without injury to the voice, is still an unsettled question. The singer should always remember that the upward limits of

the registers, as already given, must never be overstepped in light singing, nor when using moderate power. In fact, these limits should be pretty closely adhered to in all ordinary work.

But, just as an actor may make a special effort for a particular point in his role, so a vocal artist may, for a climax, or a declamatory passage, or some other special occasion, go beyond the ordinary upward limits of the vocal registers; always remembering that such effort should be preceded by a full, but not extraordinary inspiration, should only be made when he or she is in good condition, and should be followed by the moderate and normal use of the registers, to give the voice its proper rest. The fault of many modern singers is that they make this special effort the basis of their singing method, and are unable to make a tone in the normal and easy manner.

It goes without saying, that in delicate singing the registers may, and should be brought down below the limits previously given.

The power of a vocal tone is also increased, or reinforced, by a proper use of the resonance apparatus. This consists mainly of (1) that part of the larynx that is above the vocal chords, (2) the pharynx and the cavities that communicate with it, and (3) the mouth.

The action of the resonance apparatus in reinforcing the voice is not yet fully understood. We know, however, from experience, and it is generally agreed among teachers, that the tone is the most resonant when the throat is free and the column of tone is felt in the forward part of the mouth, against the roots of the upper front teeth.

(d.) TIMBRE.

This subject is a very interesting one and will repay careful and thorough investigation by the student. For our present purpose, it is sufficient to state that each tone in the voice is not, in reality, a single tone but is made up of many single tones. The extreme high notes of the piano are simple (or single) tones, but its middle and lower tones, like the notes in the human voice, are what are called compound tones; i. e., each tone consists of a series of tones, called partial tones, and including :—

(1.) The prime tone at the bottom which determines the pitch, (2.) a partial tone an octave above the prime, (3.) a partial tone one-twelfth above the prime, and many other partial tones still higher. Some notes have even twenty partial tones.

The most extreme upper partial tones do not harmonise with the fundamental or prime tone, and, when they are prominent in the voice, its quality is piercing and rough. It is known that extreme pressure of breath on the vocal chords causes these extreme upper inharmonic partials to become unduly prominent. Hence, we again see the necessity of keeping the breath back, when singing.

Among singers, the timbres of the voice are generally divided into dark or sombre on the one hand, and bright or clear on the other. The difference is accounted for as a difference in the proportions of the various partial tones. Some teachers make a pupil frown in singing a dark tone, and smile in singing a bright one. It is even asserted, and the assertion seems very plausible, that every

expression of the face has an effect on the color of the voice.

If this is so, the easiest way for a singer to get the appropriate timbre for any particular phrase, is to assume the facial expression which corresponds to the sentiment of the phrase.

(e.) ARTICULATION.

This subject has been very much investigated. There are some treatises on it that display a wealth of learning and research positively appalling. The student need not be alarmed at this, as he is only concerned with the practical result. His object is two-fold: his pronunciation must be correct, even elegantly so, and he must make himself understood. This is rarely done, however, partly because English is a difficult language to sing distinctly, as many of its so called vowel sounds are diphthongs (or nearly so), also because it is difficult to pronounce accurately in some parts of the singing voice; but mainly because singers will not practice pronunciation as carefully as they do the other departments of their art.

The main agent in pronunciation is the tongue. Every vowel sound and every consonant requires a certain position of the tongue. These positions are given in the following tables. A convincing and practical discussion of the subject of articulation will be found embodied in a work entitled "Sounds and their relations" by Alex. Melville Bell, F. E. I. S. etc. Philadelphia, Cowperthwait & Co.; Salem, Mass., J. P. Burbank, 1881. This book is an invaluable contribution to the subject of articulation, and ought to be at least read by every student of singing. Diagrams illustrating the positions of the tongue in articulation are contained in the "Visible Speech Primer" by the same author.

EXPLANATION.—"Voice" means a vocal sound in the larynx accompanying the enunciation of the given consonant. In nasal consonants the tone passes through the nose.

LIP CONSONANTS.

wh (in what.) Breath compressed between the lips. Tongue drawn back from the teeth.

w (in way.) Same as *wh*. Voice.

f (in fate.) Lower lip on upper front teeth.

v (in vase.) Same as *f*. Voice.

p (in pool.) Lips shut together.

b (in ball.) Same as *p*. Voice.

m (in man.) Same as *p*. Nasal. Voice.

BACK CONSONANTS.

k (in key.) Back of tongue against soft palate, *not* against uvula.

g (in go.) Same as *k*. Voice.

ng (in nothing.) Same as *k*. Nasal. Voice.

TOP CONSONANTS.

h (in hue.) Breath compressed between arched top of tongue and palate. (*h* in most words is simply an aspirate.)

y (in yet.) Same as *h* in "hue." Voice.

sh (in shoot.) Like *h* in "hue," except that the fore part of the tongue rises a little, so as to direct the breath forwards

zh { *z* (in azure.)
 s (in pleasure.) } Same as *sh*. Voice.

POINT CONSONANTS.

r (in ride.) Point of the tongue toward the rim of palatal arch. Voice. (*r* is rolled by flutter of point.)

s (in soft.) The front of the tongue behind the point becomes slightly convex, throwing the breath directly forward between the broadened point and the upper gum.

z (in zeal.) Same as *s*. Voice.

l (in lamp.) The point of the tongue against the rim of the palatal arch. Voice.

th (in thin.) Edges of tongue all around at teeth, leaving interstitial apertures for the breath over the sides of tip.

th (in then.) Same as *th* in thin. Voice.

t (in tone.) Point and edges of the tongue applied to the rim of the palatal arch so as to stop the breath.

d (in done.) Same as *t*. Voice.

n (in no.) Same as *t*. Nasal. Voice.

COMBINATIONS. { *ch* (in cheese)—*t sh* } { *x*,—*ks* or *gs*. }
 { *j* (in John.)—*d zh* } { *qu*—*kw*. } }

EXPLANATION.—“Front,” “back,” and “ætre” refer to parts of the tongue. “High,” “low,” and “mid” are the positions of the part of the tongue used. “Wide” means a relaxed and rather wide position for the tongue. In vowels not marked “wide” the tongue is somewhat narrowed. “Round” means that the lips are rounded. This rounding is very marked in “ōō,” moderately so in “ō,” and slightly so in “aw.” In this table only the main position of the vowel sound is given. The vanishing sound which makes the finish in many vowels can be supplied by the student.

FRONT VOWELS.

- 7 ē (meet)high-front.
 ĭ (in)high-front—wide.
 7 ē (fate.)mid-front (and high centre.)
 ĕ (met.)low-front (and high near back.)
 ă (hat.)low-front—wide (and high near back.)

BACK VOWELS.

- u (up.)mid-back, (tip at roots of lower teeth.)
 a (pass, path..)mid-back,—wide (tip at roots of lower teeth.)
 a (ah, father, arm.)...low-back,—wide (low centre, and front.)

CENTRE VOWELS.

- a (when unaccented; ex., “a dog.”) mid-centre—wide (nearly natural.)
 e (her.) }low-centre.
 i (sir) }
 e (the man.)high-centre—wide.

ROUND VOWELS. 1

- 7* ōō (pool.) high-back—round (low front.)
 oo (foot, good.) ... high-back—wide—round, (low front.)
 7 ō (hole.)mid-back—round, (tip at roots of lower teeth.)
 ȯ (door and before, “r,” &c.) mid-back—wide—round, (tip at roots of lower teeth.)
 7 awlow-back—round, (low centre and front.)
 ȯ (on, off, etc.)low-back—wide—round, (low centre and front.)

It will be noticed that the unaccented article “a” gives the most natural position of the tongue, and hence is the best vowel sound for the pupil to use in singing vocalizations.

* When in singing, it is desirable to sing a full, resonant tone on the syllable oo, the tongue may drop to the position of “aw,” the lips remaining in the oo position. This will give an increase in volume without much change in the distinctness of the vowel sound.

Most singers will find that, in the main, they already, unconsciously, form most of the vowels and consonants as above directed. But each one will also, probably, find some vowels or consonants which he habitually makes in a faulty manner, and thus injures either the distinctness and correctness of his enunciation or the quality of his tone. Moreover, by using these tables for the purpose of daily practice, the singer will be enabled to exercise the muscles governing pronunciation and will thus acquire the ability to articulate emphatically and distinctly where he now pronounces lazily and inaccurately. There is no people that pronounces its own language so clumsily and stupidly as the English speaking race. Mr Bell's system renders a distinct and even elegant enunciation possible to all. Nevertheless, the majority will probably continue to swallow its words and talk through its nose after the manner of its fathers.

5. CONCLUSION.

The preceeding account of the results of some modern investigations into vocal problems is necessarily short, and therefore incomplete and hasty. Enough has been presented to the reader to enable him to understand the main principles of some of the best modern methods. It is important that we should notice how the science of the present day confirms the empiricism or the old Italian school. For instance: it confirms the instructions of the old "maestro" regarding the existance of the chest, head and mixed voices, the necessity of economizing the breath, the use of the chest voice when singing a full tone on a note

whose pitch would require the mixed voice for a soft effect, and so forth. Indeed it may be said that science has, so far, only told us definitely and accurately that which we already knew inaccurately and in the rough.

If modern methods are, in reality, so much like the old school, why is it that we have not produced singers to compare with the old ones? Why is it that Patti, the last surviving example of the great era of singing, is the only modern artist who has a substantially perfect and complete vocal technique?

The answer is, that the old school used its method as a means of directing properly the daily practice of the pupil, the modern school uses its method as a fetish which is expected to charm away all vocal evils. The method of the old school was a small part of its process of instruction; the modern school has nothing but method to give to the pupil, who is taught that method renders unnecessary years of study, and regular daily, stupid, monotonous practice.

The teacher of the future will not consider his method the only important thing. He will follow the old process. He will attempt little the first or the second year, and will go gradually, carefully, regularly and, above all, slowly to the end. Method when rightly used is not a "short-cut" by which natural laws may be evaded. Nature is a hard task-mistress. What you steal from her to-day, she will exact with compound interest to-morrow. The end of these "short-cuts" is, that every quick result which the pupil gains is attended either with some physical weakness or disease, or else with an accompanying fault; such as a

tremolo, a tendency to sing "off the key," a nasal, sharp, foggy, hard or weak tone, a lack of flexibility, a premature decay of the voice, or some other disagreeable thing, which, like Banquo's ghost, is apt to pop up at the very moment you wish to display yourself on some festal occasion.

A correct method is a necessity, but it can only supplement good natural gifts and long continued practice. The fault of modern instruction is not in its method, but in the way in which it misuses it. The course of instruction of the future will be a combination of the intellectuality of the present, with the thorough and patient training of the past. Then we may hope to see a generation of singers whose names will mark an era in their art as famous as those signalized by a Farinelli or a Rubini, a Catalani or a Malibran.

APPENDIX.

SINCE the first appearance of this pamphlet, three years ago, several important works on vocal problems have been published, and I feel that it is due to the readers of this second edition to refer briefly to these latest "Modern Methods." Further experience with pupils has moreover convinced me that the practical value of this work will be increased by a more detailed presentation of some of the subjects contained therein.

THE OLD ITALIAN SCHOOL.

The best original authorities are "*Opinioni de' Cantori Antichi e Moderni o sieno Osservazioni sopra il canto figurato*," by PIETRO FRANCESCO TOSI; English translation by GALLIARD, in 1742; — and "*Pensieri e riflessioni pratiche sopra il canto figurato*," by GIOVANNI BATTISTA MANCINI, [1st Ed. Vienna, 1774, 2d (called 3d) Ed. Milan, 1777.] There is a copy of Mancini, and also one of Galliard's translation of Tosi, in the Public Library of Boston.

If Tosi had an elaborate method he took care not to publish it. He advises gaining the high notes by degrees and singing them at first softly. He says the voice should come forth neat and clear, neither nasal nor throaty. He speaks of head and chest registers, and

says the Italian vowels (*i*) and (*e*) are the best for the head voice. He objects to tricks and grimaces of head, body or mouth, and to the tremolo. He advises using the "*messa di voce*" sparingly, and on the open vowels, and managing the breath so as to always have more than is necessary.

Mancini divides all voices into two registers, viz: — the natural or chest voice, and the artificial ("falsetto") or head voice. The term falsetto is probably used in a sense very different from that in use in this country. Mancini seems to mean that the upper tones cannot usually be produced in the speaking voice, but require some artifice to lessen the effort of singing the higher notes. [Bassini, who was a pupil of Crescentini, ("the last great singer that Italy produced," *Fétis' Biographie Universelle, etc.*), and also of Zingarelli, says that the theoretical signification of the word "falsetto" is not that voice which imitates the woman's voice, but "*all are falsetto tones which are not produced from the chest.*" He includes both head and medium registers under the term falsetto.—*Bassini, Art of Singing*; Boston: Ditson & Co.] Mancini also advocates supporting the tone from the chest, so as to leave the throat free. He insists that the breath should be kept back and economized, that the two registers should be united and equalized; and that the mouth should be easily opened with a natural smile. He condemns singing with closed mouth or rounded lips. I cannot find any authority for abdominal respiration in his pages. He recommends, above all things, long study and patience, and refers to the fact

that in his time there were different methods even among the pupils of the same teacher.

An interesting historical sketch of Mancini's School is contained in "*The Old Italian School of Singing*," by LEO KOFLER. (Albany, N. Y., Edgar S. Werner, 1883.)

RESPIRATION.

In cases where the ribs are flexible, and have large expansive power, their movement outward and upward necessarily enlarges the circumference of the diaphragm and raises its rim upward to a marked extent. In such cases the centre of the diaphragm may sink relatively to the ribs and lungs and yet exert little or no pressure on the abdominal contents. It even seems possible that when the chest is large in proportion to the abdomen, the full expansion of chest, and the contraction and descent of the diaphragm, may be accompanied by a slight flattening of the abdomen, which, however, should not be drawn in by muscular effort during inspiration.

"*Voice, Song and Speech*," (already cited) advocates extreme abdominal inspiration. "*The Physiology of Artistic Singing*," by JOHN HOWARD, (Boston, 1886, published by the Author), contains a very elaborate and ingenious presentation of the arguments in favor of the extreme clavicular mode. "*The Diaphragm*," by J. M. W. KITCHEN, (Albany, Edgar S. Werner, 1885), expresses a view that seems to me worthy the careful consideration of all singers, in the following words: "A har-

monious use of all the parts of the respiratory apparatus is the normal respiratory procedure," (p. 45.)

The pupil should accustom himself to take breath without altering the easy and free position of the throat and without lowering the larynx. It is also to be noticed that the ribs have properly an expansion backward as well as sideways, forward and upward.

USE OF THE VOCAL CHORDS.

Many laryngoscopists have not been able to agree with the results obtained by the authors already referred to in this work. I have always been able to notice in uncultivated voices changes of timbre sufficiently marked to indicate changes of register at the points referred to by Mad. Seiler. I am satisfied that uncultivated voices, when singing lightly, would be subject to strain if they should overstep the limits laid down by her. I find it best to begin with her registration as a starting point, but beyond that there does not seem to be any rule that will do for all voices. [See pages 37 and 38 of this Appendix.]

It is also my experience in teaching, that while there is almost always a more or less marked sensation of relief in passing from the mid-chest to the neck register, still I have not been able to notice that the vocal chords became sufficiently relaxed to allow a reappearance of the little opening under the Adam's apple, referred to on pages 18, 20, 21 and 22 of this work. In view of the unsettled condition of laryngoscopic investigation, it has

seemed best not to remove from this edition the statements regarding this opening, but merely to add here the results of my own experience.

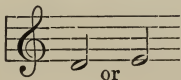
One of the latest works on the voice [*“Hygiene of the Vocal Organs,”* by MORELL MACKENZIE. London, Macmillan & Co., 1886,] contains in a brief space (pages 49–91) the most comprehensive account of investigations with the laryngoscope that I know of. Dr. Mackenzie also gives in an appendix a table showing the action of the vocal chords as observed by him in the cases of fifty different singers, including Nilsson, Albani, Valleria, Patey, Griswold, Maas, Foli, and others.

POWER AND RESONANCE.

The following practical rules for the extension of registers (see page 25 of this work) will be of service to students.

Sopranos, as a rule, should not carry the chest voice upwards, in fact many may find it advisable to sing even their lower notes in the neck voice. Many fine artists carry the neck and mouth tones upward when singing the full voice.

Contraltos should beware of forcing the open deep chest voice above



even when singing

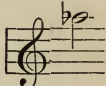
the full voice, for by so doing, the middle tones, which ought to be round and full, are weakened, and the so-called “break” in the voice becomes disagreeably pronounced. Such singing may please the crowd, but it is

nevertheless inartistic and unmusical. Contraltos must also be more cautious than Sopranos in extending the neck and mouth tones upward.

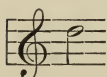
Tenors will find the neck voice useful, even as low

as  written  and there

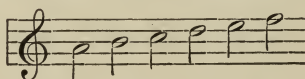
is really no necessity, except on extraordinary occasions,

for carrying the mid-chest register above 

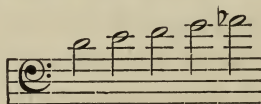
Many tenors can carry the open deep chest voice to

 while others find the mid-chest voice suf-

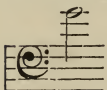
ficiently effective, and less exhausting, on the notes



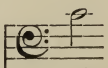
Baritones can use the neck voice on

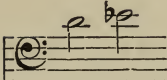


and will find this register less fatiguing than the mid-chest voice. Some baritones, however, seem to have sufficient strength to carry the mid-chest voice even to



Most baritones and basses can carry the open

deep chest voice to  and some voices can

carry it to  I have heard artists try to open an E natural and F, but do not think it pays.

A very important point in the study of registers is to make the voice even, so that there is no sudden change of timbre in passing from bottom to top. This is best done by blending the registers as follows:—In the deep chest voice the tone should fill the mouth, neck and chest with an inclination toward the head. The mid-chest voice is similar, except that the sensation stops at the middle of the chest. The neck voice includes also the mouth and head sensations, but of course has no chest vibration. The mouth voice is also felt in the head. In all registers the tone should be felt at the front teeth and lips.

The extension of the registers requires skill, care, and good judgment on the part of both teacher and pupil, and no rule will fit all cases.

In regard to the use of the “resonance apparatus” (see page 25) I will add that it is the opinion of many fine artists and teachers that the tone is improved when there is a sensation of vibration in the head. This has just been shown to be useful in all registers, though it is more and more noticeable as the voice goes up the scale. My experience tends to show that the head vibration, when united with the proper sensations for each register and with the forward sensation in the mouth, adds roundness to the voice and assists one in keeping on pitch. If, however, the tone is allowed to slip away from its front

position in the mouth, so that it remains in the head alone, the result is a hollow, dull tone, which may sound enormous in a small place, but lacks carrying power.

The larynx moves freely in ordinary conversation, but different timbres, vowels and pitches in singing require such opposing positions of the larynx, that a stationary and central position, neither raised nor lowered, is the one that will best enable a pupil to sing all vowels and timbres on all pitches. It is claimed (*"Physiology of Artistic Singing,"* already cited) that a fixed and central position of the larynx brings it into contact with the spine and improves the tone. The stationary position is the one favored by the best singers and teachers of my acquaintance.

It is a mistake to open the mouth to its utmost, as this tightens the pharynx (*Garcia's Method*, already cited, page 10). The chin should neither be protruded nor drawn in.

TIMBRE.

Most teachers make more or less use of two opposite timbres, which are called open and closed. Many speak of the sombre or closed timbre as opposed to the open or clear timbre. Here, as in other departments of vocal art, confusion reigns, and it hardly seems possible that different teachers can mean the same thing when using the same word. To prevent misunderstanding, the above mentioned terms will here be used in the following senses:

An open tone is one that seems to come from an

open throat. A closed tone is the opposite of the open tone, and seems to come through a smaller aperture, although in good singing it does not feel stifled or squeezed. The sombre and bright timbres are, so to speak, the opposing colors of the voice. The bright timbre usually accompanies those healthy, pleasant and joyous emotions which are beneficial to the constitution, though it is sometimes used to express hatred, etc. The sombre timbre is richer and more deeply emotional, and is most used in the expression of passionate love, despair, grandeur, and other feelings that are profound in their character and accompanied with a considerable expenditure of vital resources. These timbres shade into one another, and many tones are of medium coloring.

Following this classification it may be said that an open tone may be either sombre or bright in coloring, and the same is true of the closed tone.

It is difficult to lay down definite rules as to just when to use each one of the above timbres and how strong to make the coloring. Much depends on the good sense and refined taste of teacher and pupil. It is pretty generally agreed that the lower part of all voices is open. Methods differ as to the upper part of the voice. My own experience is that the closed timbre is the more beneficial for the upper tones in most cases, though some exceptional voices seem able to sing open tones to the top of their range.

Mr. John Howard, in his work already quoted, claims that the chain of muscles, beginning with the soft palate and extending down the throat to the tongue bone and

larynx, and from the larynx to the breast bone is of great assistance in closing the opening between the cartilages of the larynx (see page 18 of this work), and thereby stretching the vocal chords. The more these muscles are exerted the smaller will be the opening into the throat.

The full voice is the more open, the soft voice the more closed on any given note, but the extent of the opening or closing depends on the individual voice and on the pitch of the note. As a rule, low soft tones are not much closed, and very high full tones but little opened. Here again the teacher and pupil need good judgment, for what will help one voice may hurt another.

The clear timbre is the least wearing on the voice. It should be used in elementary exercises, and should be made the basis of the voice. Let the pupil learn to sing a sweet, pure, bright and healthy tone through the entire voice, and reserve the sombre timbre for appropriate vocalizes and songs. The sombre timbre should never be sung in cold blood. It should not be attempted until the pupil is so far advanced in the mechanical side of the art as to be able to assume the full spirit of the song without risk of strain.

Most modern operatic artists use the dark, emotional timbre to excess. [See the following remarks on style.]

STYLE.

As no two artists have exactly the same style, it may seem at first sight impossible to characterize any particu-

lar style as belonging to modern methods. There is, however, one marked distinction between the style of the older schools and that of the present day. The old school singer had two objects in view. He displayed his technical skill as a performer on his own vocal instrument, as well as his ability as an interpreter of the æsthetic side of the vocal composition. To-day we still have pianists who are allowed to show their technique as well as their expressive power. To-day the violinist is applauded for his wonderful skill as well as for his emotional and intellectual insight, but the poor singer has degenerated until the music of even fifty years ago is beyond the technical skill of a large majority of our prominent vocalists.

In place of the skill of the artists of former times, we have now an over-development of the emotional side of singing. It may be rank heresy to say so, but it is nevertheless true that most modern singers have too much intensity. What is the result? It is in singing as it is in every day life. The man or woman who is habitually keyed up beyond the normal pitch of healthy emotional action, must finally pay the penalty. The pendulum which has swung too far in one direction must ultimately swing as far on the opposite path. The result with vocalists is early collapse and premature decay of the voice. The evil is sometimes postponed by the use of stimulants, but only for a brief time, with still greater ruin as the result.

A style, the exact opposite of the above, is quite prevalent in New England. It is quiet, sweet, refined,

and eminently proper and respectable. It does not injure the voice, but unfortunately it is so cold and colorless that it makes but little effect. Virility, womanliness, strength, breadth, fire, animation, impetuosity, dramatic power,—these are not injurious, but necessary. They are really beneficial to the voice, provided the singer keeps within the line that separates true feeling from melodramatic extravagance.

Another fault is the notion that vocal power is simply the result of the exertion of physical strength. This is screaming and roaring, not singing. The full voice should always have some strong emotional quality blended with it. This is the only way in which a strong tone can be made of good quality.

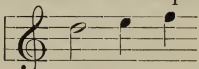
It is to be hoped that the coming generation of singers will realize that the voice is a beautiful thing in itself apart from its expressive power, and that a perfect style only exists when great technical skill is united with appropriate but unexaggerated emotional expressiveness.

APPENDIX II.

THE OLD ITALIAN SCHOOL.

GIULIO CACCINI was one of the founders of solo singing with instrumental accompaniment. The preface to his "*Nuove Musiche*" (Florence, 1601-2) contains a few directions regarding the use and training of the singing voice. There is a copy of this work in the Public Library of Boston.

Caccini advocates the use of all vowels, but prefers the open ones. He makes a distinction between the full, natural voice and feigned or counterfeited voices or tones ("le voci finte"), and apparently advises all singers (except probably the male falsettists, who in his day sang treble and alto songs) to shun the feigned voice. This was an easy thing to do, as the music for soprano and

tenor voices did not go above  at this

time. According to Caccini the singers who used the natural voice did not have to pay much attention to the respiration, except in preparing for long phrases; but those who employed "le voci finte" were especially in need of breath. This covers about all he has to say about method, except that he directs the production of the trill by a stroke in the throat.

After Caccini there was no celebrated teacher until PISTOCCHI who established a school at Bologna about 1700.

He is said to have been the first to teach methodically the placing and emission of the voice, the correct articulation of running passages as well as phrasing and dramatic expression. (*"Biographie Universelle des Musiciens"* by *Fétis*, articles on "*Pistocchi*" and "*Bernacchi*").

The greatest teacher of the time immediately following Pistocchi, in fact the greatest the world has had, was PORPORA (1686–1767). He left no written account of his method, but it is known that he kept his pupils for years on technical exercises. His "*Solfeggi fugati*" have been published by Breitkopf and Härtel, Leipsic.

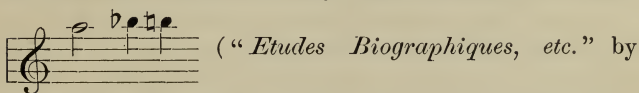
Porpora's greatest contemporary among teachers was BERNACCHI (1690–1756), a pupil of Pistocchi and a celebrated singer as well. Mancini was Bernacchi's pupil; hence the work of Mancini already quoted (pages 33 and 34) probably gives a fair idea of the method of Pistocchi and Bernacchi.

SOME MODERN TEACHERS AND INVESTIGATORS.

The connecting link between the old schools and modern methods was the Spaniard, MANUEL GARCIA (1775–1832) (called "*the first*" or "*the elder*") who studied the Italian styles and traditions in Italy, especially with the celebrated tenor *Ansani*. In the opera of Garcia's day the upward range of music written for the tenor voice, and the range downwards of music written for the female voice was greater than it is to-day. Hence Garcia employed the old falsetto a great deal with his tenors, and developed the chest voice to such an extent in the lower part of female voices as to sometimes create in the middle of the voice a gap of several dead, unsatisfactory tones. The result was not perfect art, but the singer was able to produce extra-

ordinary effects of contrast between brilliant high tones and powerful low ones.

The man who revolutionized the art of tenor singing was a Frenchman, DUPREZ (1806-18-). He brought two things into enduring popularity. One was the frequent use of the sombre voice, the other was the "ut de poitrine" or "chest high C." The tenors of the old schools used dark tones, but only rarely. (*"Mémoire sur une nouvelle espèce de voix chantée,"* by DIDAY and PÉTREQUIN. In the Boston Public Library.) They also employed the chest voice on the high notes, but only for effects, and not above

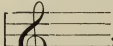


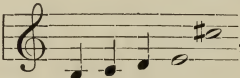
MM. ESCUDIER FRÈRES. Paris, 1840, pages 64 and 74.)

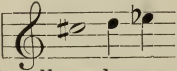
Duprez's innovations were immensely stirring, but they have since wrecked many a voice, through over use.


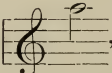
A Parisian physician, Dr. BENNATI, one of the leading throat specialists of his day, in a work entitled "*Recherches sur le mécanisme de la voix humaine*" (Paris, 1832), a copy of which is in the library of the Boston Athenaeum, gave the results of observations made on the back of the mouth and palatal region during the act of singing. As subjects he had the greatest artists of his time, in other words some of the greatest singers that ever lived. Among them were Sontag, Catalani, Lablache, Pisoni, Rubini, and Donzelli. He found that the lower register in all kinds of voices was accompanied by an open position of the back of the mouth, caused by a rising and enlarging of the arch of the soft palate; while with the pure head voice in sopranos and the falsetto in tenors the back of the mouth was almost closed by a lowering and contraction of this arch. In cases where the upper tones were sung in the lower register, for robust effects, the back of the mouth was ap-

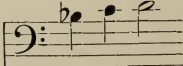
parently somewhat less open than in the lower part of the voice, but not nearly so closed as in the head and falsetto tones.

The "second" MANUEL GARCIA, (1805 —) carried out his father's method into great minuteness of detail and with important original additions. His invention of the laryngoscope and his work (*"Garcia's Method"*) have already been noted (*pp. 16, 17 and 40*). He departs from the registration of the old school by dividing the old upper register (falsetto or head voice) into two registers. The lower of the two he calls *falsetto*, the upper *head register*. In other words, with him falsetto means a medium tone, between head and chest. He uses all three registers (head, falsetto and chest) in the female voice, but objects to the use of the head voice by men, except very sparingly. His registration changes somewhat for each class of voices. Roughly speaking, it may be said that in female voices he carries the chest register to , uses the falsetto in

the range , and places all tones

above  in the head. In treating the male voice he allows basses and baritones to carry the chest reg-

ister to , tenors to , and with all

male voices places the falsetto from  up.

He began by using chest expansion with flattened abdomen for both inspiration and support. In later editions of his work he has advocated raising the chest and lower-

ing the diaphragm in inspiration, and reversing the process in expiration. In his latest work (*"Hints on Singing,"* Schuberth & Co., N. Y.) he again advises raising the ribs and drawing in the stomach in inspiration. He uses all timbres, open and closed, bright and dark, and lays especial stress on the development of a vigorous stroke of the glottis in starting the tone.

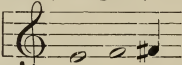
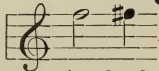
The elder LAMPERTI (1813-18-) revived the practice of those Italian teachers of earlier eras who insisted that the foundation of good singing was a proper breath support. (*"A Treatise on the Art of Singing"* by FRANCESCO LAMPERTI. Schuberth & Co., N. Y.) But unlike the school of Bernacchi, Lamperti avoided the use of the upper chest in breathing and in tone support, and placed his main reliance on the diaphragm and abdominal muscles alone. (*"Dictionary of Music and Musicians,"* by GROVE, article on Lamperti.) Like Garcia he used three registers in the female voice and two in the male, but instead of the term "falsetto," he used the term "mixed voice," and thus avoided the confusion inseparable from the use of the former term. His registration is as follows:—



(It goes without saying that notes written in the treble clef are sung in the male voice an octave lower than they are written.)

He placed the voice on the open Italian *a*, formed in the bottom of the throat, and advised "drinking in" the tone.

MADAME MARCHESI is a German living in Paris. She studied under Nicolai and the second Garcia (*"Musik-Lexikon"* by RIEMANN). She has trained the female voice only. In her *L'Art de Chant, op. 21* (Collection Litolff), she advocates diaphragmatic (or abdominal) inspiration, and condemns both clavicular and lateral breathing; but does not speak of supporting the voice by the breath. She produces the tone with a natural stroke of the glottis, using the vowel *a* (Italian) slightly sombered. She car-

ries the chest voice to , and the medium register to . (The tones above this limit are sung, of course, in the head register.)

The most celebrated teacher now doing active work is SBRIGLIA. He has published a set of technical studies, but no printed "Method." The following points concerning his system are summarized from notes of instruction received by the author personally and of lessons received by others in his presence.

Sbriglia follows the old school in making the breath support the foundation of all vocal development, and agrees with Mancini in making the chest the important factor.

In placing the voice he usually avoids the subject of registers, insisting that if the pupil will direct all tones toward the region embracing the forehead, the bridge of the nose, the cheeks, the roof of the mouth and the lips, and will properly support the voice, the registers will take care of themselves. He uses the sounds *mi-ra* and *tu-ro* (Italian pronunciation, except the *u* which has the French sound) and employs both open and closed tones. Sometimes he advises the smiling position of the mouth, at others the protrusion of the lips, thus gaining both bright and dark colors.

He makes the head voice, or falsetto, produced with the closed position of the back of the mouth already noted in the paragraph on Bennati, *and properly supported*, the root of the voice. By this he does not mean the commonly used, lifeless falsetto, for the chest support makes the tone firm and ringing, and capable of development into great power.

Among modern scientific investigators, two demand especial mention, viz.: DRs. MACKENZIE and JOAL.

DR. MACKENZIE, in his work already quoted (on page 37 of this work), gives an account of observations made by him on the degree of opening of the glottis in the production of different registers. According to him the glottis is usually open in the lower part of the voice, but in the head voice of women and the falsetto of men the bases of the arytenoid cartilages and the rear portions of the vocal chords themselves are usually tightly closed together. When the upper tones are sung in the lower register the bases of the arytenoid cartilages close, but no parts of the vocal chords are in contact. In other words the glottis is usually open during the production of the lower tones, almost closed during the production of the head voice and falsetto, and moderately open during the production of high tones in the lower register.

The reader is advised to compare Mackenzie's conclusions with those of Bennati.

DR. JOAL in an article entitled "*The Mechanism of Breathing among Singers*" (to be found in *Werner's Magazine* for June, July and August, 1893,) gives the following table, which summarizes his observations on the leading singers of our day in Paris, (including Albani, Fursch-Madi, Richard, Capoul, Gayarré, Lassalle, Jean and Edouard de Reszke.)

Of the 23 women	{ 9 used the clavicular method.
	{ 14 used the costal method.

Of the 62 men { 11 used the clavicular method.
 { 19 used the abdominal method.
 { 32 used the costal method.

None of the women used the abdominal method.

By the costal method he means a marked expansion of the chest, especially at the level of the lower ribs, accompanied by total immobility of the collar bone, and often by a moderate flattening of the abdomen. Dr. Joal advises this method, which he says is employed by the best artists.

The author has endeavored to show a way of reconciling the apparent contradictions of the various systems of registration and respiration one with another in his "*Vocal Technique*" (Boston, Miles and Thompson, 1895.)

Professional singing is to-day in better condition than when this little book was first published. Such artists as Lehmann, Melba, Jean and Edouard de Reszke, Plançon and Lassalle have recreated vocal art.

Much of the future depends upon the artists of our own nationality who are evidently destined to make the United States an important factor in the world's artistic progress.



ms. B.
Ed. ms.

